

Remarks

Claims 1-7 are now pending in this application. Applicants have amended claims 1, 2, 4, 5, and 7 and cancelled claims 8 and 9 to clarify the present invention. Applicants respectfully request favorable reconsideration of this application.

Regarding the information disclosure statement filed October 14, 2005, the relevance of DE 19857683 is discussed at page 2, lines 12-18. There is no requirement to provide an English translation of non-English references. Accordingly, Applicants respectfully request that the Examiner indicate consideration of this reference.

The Examiner rejected claims 7-9 under 35 U.S.C. § 101 as being directed to non-statutory subject matter. Applicants have amended claim 7 to recite a computer readable medium, as described in the specification at page 13, lines 31-34. Claims 8 and 9 are no longer pending. Accordingly, Applicants submit that claim 7 complies with 35 U.S.C. § 101 and respectfully request withdrawal of this rejection.

The Examiner rejected claim 1 under 35 U.S.C. § 112, first paragraph, as not being supported by an enabling specification. In particular, the Examiner asserted that the specification does not enable revalidating the compiler for any errors introduced between the first and second compilation. Applicants have amended claim 1 to recite that the compiler and compiler execution environment are revalidated. Applicants submit that the specification clearly describes how to carry out such a process. Accordingly, Applicants submit that claim 1 complies

with 35 U.S.C. § 112, first paragraph, and respectfully requests withdrawal of this rejection.

The Examiner rejected claims 1, 2, 6, 7, and 9 under 35 U.S.C. § 103(a) as being upatentable over U.S. patent 5,754,860 to McKeeman et al. in view of U.S. published patent application 2002/0046397 to Schmitt. The Examiner rejected claims 3 and 4 under 35 U.S.C. § 103(a) as being upatentable over McKeeman et al. in view of Schmitt and further in view of U.S. published patent application 2003/0135842 to Frey et al. The Examiner rejected claim 5 under 35 U.S.C. § 103(a) as being upatentable over McKeeman et al. and Schmitt in view of Frey et al. and further in view of U.S. patent 6,598,074 to Moller et al.

McKeeman et al. does not suggest the present invention as recited in claim 1 since, among other things, McKeeman et al. does not suggest utilizing one test program to revalidate a compiler by compiling the test program twice and comparing the results of the first compiling and second compiling. On the other hand, McKeeman et al. suggests comparing the output from two compilers to test a software. In particular, McKeeman et al. in the last line of the abstract states, "If a test failure is detected, the source program causing the test failure is reduced using various reduction techniques." McKeeman et al. does not suggest testing a compiler. Rather, McKeeman et al. more accurately suggests testing software. Along these lines, McKeeman et al. goes on to suggest ways to debug software. For example, the passage at col. 30, lines 7-17 describes and Figs. 13-15 illustrate modifications to a test program that may be carried out after a fault has been detected and judged to be reproducible.

Additionally, contrary to the Examiner's assertion, col. 1, lines 23-40 of McKeeman et al.

does not suggest enabling execution of a program if revalidation of the compiler and compiler environment find no errors. Rather, in this passage, McKeeman et al. is referring to testing software and finding errors. This is clear from the preceding passage at col. 1, lines 18-22. Therefore, the passage at col. 1, lines 23-40, when viewed in context suggests finding an error during a test and then subsequently detecting where the error is. The passage, nor any other passage of McKeeman et al. suggests enabling a user written program to execute in a device, or preventing the software from executing based upon validation of a compiler. Rather, McKeeman et al. only suggests finding an error when testing software, and not that execution may be halted while controlling real world entities. Thus, as the Examiner points out McKeeman et al. does not suggest the execution in a device with safety features for control of real world entities.

Combining McKeeman et al. with Schmitt does not suggest the present invention as recited in claim 1 since, among other things, Schmitt does not overcome the above-described deficiencies of McKeeman et al. For example, Schmitt suggests de-bugging flowchart programs for an industrial controller carried out with a visual display of graphics or structured text for the user manually doing the debugging. Thus, Schmitt suggests software running on an industrial controller that may be manually debugged. As a result the combination of McKeeman et al. Schmitt does not suggest the present invention as recited in claim 1. Rather, the combination only suggests software testing where software is tested on two compilers, running in an industrial controller under the manual command of a user who examines the resulting stages by means of a debugging flowchart.

The combination of McKeeman et al., Schmitt and Frey et al. does not suggest the

present invention as recited in claims 3 and 4 since, among other things, Frey et al. does not overcome the above-described deficiencies of McKeeman et al. and Schmitt. Along these lines, Frey et al. does not suggest a method to revalidate a compiler and a compiler execution environment including compiling a test program a first time, validating the compiler and the compiler execution environment by verifying that the test program executes correctly, compiling the test program a second time, and comparing the first compiling with the second compiling. The Examiner only cites Frey et al. as suggesting a check-sum or code for cyclic redundancy check. Such does not suggest the method for compiler and compiler environment validation of the present invention. As a result, the combination of McKeeman et al., Schmitt and Frey et al. does not suggest the present invention as recited in claims 3 and 4.

The combination of McKeeman et al., Schmitt, Frey et al. and Moller et al. does not suggest the present invention as recited in claim 5 since, among other things, Moller et al. does not overcome the above-described deficiencies of McKeeman et al., Schmitt, and Frey et al. Along these lines, Moller et al. does not suggest a method to revalidate a compiler and a compiler execution environment including compiling a test program a first time, validating the compiler and the compiler execution environment by verifying that the test program executes correctly, compiling the test program a second time, and comparing the first compiling with the second compiling. The Examiner only cites Moller et al. as suggesting downloading a variable that changes over time. Such does not suggest the method for compiler and compiler environment validation of the present invention. As a result, the combination of McKeeman et al., Schmitt, Frey et al. and Moller et al. does not suggest the present invention as recited in claim 5.

In view of the above, the references relied upon in the office action, whether considered along or in combination, do not suggest patentable features of the present invention. Therefore, the references relied upon in the office action, whether considered alone or in combination, do not make the present invention obvious. Accordingly, Applicants respectfully request withdrawal of the rejections based upon the cited references.


In conclusion, Applicants respectfully request favorable reconsideration of this case and early issuance of the Notice of Allowance.

If an interview would advance the prosecution of this case, Applicants urge the Examiner to contact the undersigned at the telephone number listed below.

The undersigned authorizes the Commissioner to charge fee insufficiency and credit overpayment associated with this communication to Deposit Account No. 22-0261.

Respectfully submitted,

Date: 3/14/08


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